ABSTRACT

A modem system for receiving and transmitting signals having a frequency domain equalizer (FEQ) block being responsive to a frequency channel response for processing the same to generate one or more initial FEQ coefficients (FEQ1), said modem system being responsive to an input signal for processing the same to generate said frequency channel response, said input signal being generated from a transmitted signal, said FEQ block using said FEQ1 to generate an equalized Signal, said modem system demodulating said equalized Signal to generate a demodulated Signal symbol, in accordance with an embodiment of the present invention. The modem system further includes a transmitter responsive to said demodulated Signal symbol for processing the same to generate a remodulated Signal symbol, said modem system for using said remodulated Signal symbol to generate one or more FEQ coefficients (FEQ2), said FEQ coefficients for enhancing the accuracy of said FEQ block in equalizing said frequency channel response, wherein said FEQ coefficients improve the performance of said modem system by mitigating the effects of multi-path channel arising in transmission of said transmitted signals.